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Renewable Energy Certificates and Emissions Trading: Is There Light at the End of the Tunnel?

Tom Kerr, US EPA

Overview

- **Background**
- **A minute on the air regulator's perspective**
- **Renewable energy and environmental regulations**
- **RECs and emissions markets: paths forward**

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Renewable Energy Credits: An Exciting Concept

- **Consumer's "right to know"**
- **Consistent with competitive electricity markets**
- **Potential driver for investment in renewables**
- **Public education tool:**
  - draw attention to electricity's environmental impacts
  - certificate represents value of clean power
  - provide customer choice

If we can trade emissions, why not "green" stuff, too?

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RECs and Emission Markets

What do you want from air regulators?

- Money!
- An endorsement from environmental regulators that renewable energy = quantifiable environmental benefits
- Fairness: renewables deserve equal treatment with other fuel sources

What are the barriers to getting what you want?

- Meeting air regulators' requirements
- No common method for calculating env benefits
- Coordination with RPS, other policies

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Get Inside the Head of an Air Regulator

- **What do I care about? Emissions reductions that are:**
  - Quantifiable
  - Surplus
  - Enforceable
  - Permanent
  - Geographically relevant
  - (P.S. - I don't *really* care about CO2 reductions!)
- **Where am I heading?**
  - Away from permit-based command & control systems
  - Towards market-based cap & trade systems
  - Towards voluntary efforts for CO2:
    - EPA's Green Power Partnership
    - State renewable energy procurement
    - City/country procurement

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Renewables & Air Regulations

Credits for renewables are rare

- **Traditional air regulation**
  - state implementation plans (SIPs): must impact the airshed
  - emission rate standards (lb/mmBtu): don't recognize zero- or low-emission technologies
- **Cap & trade programs**
  - firm emissions cap (tons)
  - once cap is set, regulators don't care which fuels/controls are used
  - allocation by fossil heat input, fuel type
  - Offsets, opt-ins & set-asides:
    - isolated/small size of total cap
    - high transaction costs may limit benefit

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Innovative Regulatory Approaches

- **Begin with cap & trade model**
- **Set output-based standard (lb/MWh)**
  - fuel-neutral
  - rewards generation efficiency
- **Do a broad allocation**
  - include renewable output
  - automatic credit; no application needed
- **If allocation doesn't work, think about set-asides**
- **Example: Western Region Air Partnership (WRAP) to combat regional haze**
  - set-aside gives allowances to renewables

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RECs and Emissions Credits: Other Issues

- **Coordination with state RPS**
  - common data systems
  - insure incremental to RPS
  - apply to every unit sold
- **Coordination with state disclosure rules**
  - mandatory disclosure, including emissions ("brown" tags too!)
  - coordination between states
- **Credibility with consumers**
  - public acceptance of concept
  - ensure clear ownership to avoid double-counting
  - don't separate attributes

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Paths Forward: EPA's Role

- **EPA data systems will support RECs:**
  - E-GRID database
    - emissions & resource mix for entire power sector, power flows between regions
    - supports state policies (disclosure, RPS)
  - Allowance Tracking System - records allowance transfers for SO_2, NO_X
- **Analytical tools (forthcoming)**
  - document pollution prevention thru emissions profile tool
- **Outreach & education**
  - Clean energy website
  - Green Power Partnership - list of REC providers
- **Rulemakings & policy guidance**
  - SIP credit for renewables
  - Cap & trade options
  - Support common REC tracking system

Paths Forward Cont'd.

- **International efforts**
  - World Resources Institute Project GHG Accounting Protocols
  - Canada/US efforts to harmonize REC markets
  - Emerging international market for RECs
  - Emerging market for GHG reductions associated with RECs

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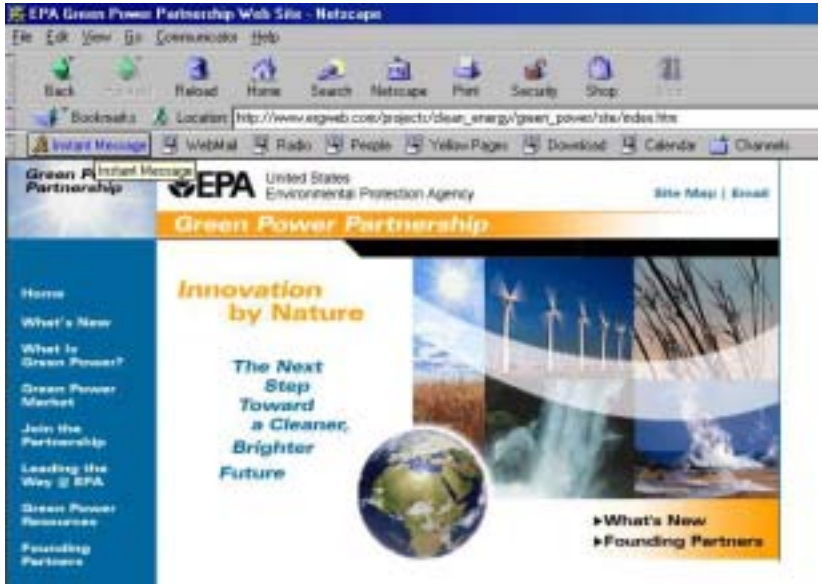
For More Information

Green Power Partnership Website:

www.epa.gov/greenpower



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